

Appendix A

General Fogleman's, CSAF, and Dr. Widnall's, SecAF, memo to Dr. McCall, SAB Chair, subject: *New World Vistas* Challenge for Scientific Advisory Board (SAB), dated 29 Nov 94.



SECRETARY OF THE AIR FORCE
WASHINGTON

29 Nov 94

MEMORANDUM FOR DR McCALL

SUBJECT: New World Vistas Challenge for Scientific Advisory Board (SAB)

During the recent commemoration of the 50th anniversary of the Scientific Advisory Board (SAB), we recognized its significant accomplishments over the past half century. In addition to the high profile aircraft and weapons systems General Arnold and Dr von Karman foresaw, these two visionaries also reminded us that *"only a constant inquisitive attitude toward science and a ceaseless and swift adaptation to new developments can maintain the security of this nation."*

This reminder is even more relevant today than it was 50 years ago. There has never been a period in our country's history when "swift adaptation to new developments" was more important. One need only look at the blistering pace of computer technology and information system development to appreciate that the security of our nation depends on a "constant inquisitive attitude."

We want you to re-kindle that attitude toward science. In that spirit, we challenge the Air Force Scientific Advisory Board to search for the most advanced air and space ideas and project them into the future. Fifty years ago, the SAB was challenged with looking "Toward New Horizons." Today, we launch our search for "New World Vistas."

New World Vistas should be a truly independent, futuristic view of how the exponential rate of technological change will shape the 21st century Air Force. We'd like to begin this effort immediately, and complete the forecast within one year. Our goal is to publish New World Vistas in December 1995, on the 50th anniversary of the publication of Toward New Horizons.

New World Vistas should offer a ten year technological forecast which:

- 1) Predicts how the explosive rate of technological change will impact the Air Force over the next ten years. Identify fields of rapidly changing technology and assess their impact on the modern Air Force. Some possible areas to explore include the rapid advances in information, C4I, and space technology. Your challenge is to identify those areas which will most likely revolutionize the 21st century Air Force.
- 2) Predicts the impact of these technological changes on affordability of Air Force weapons systems and operations.

3) Predicts Science and Technology (S&T) areas where we can minimize Air Force investment and turn to the commercial world for technology development. Highlight opportunities for dual use, possibilities for defense conversion, and mechanisms for capitalizing on technology advancement in the commercial sector. Identify areas we can rely on, or partner with, commercial industry for technology development. Also, identify the areas where we are not the innovator, but a large high tech customer. Offer advice on how the Air Force can be a better customer.

4) Predicts S&T areas we will have to develop, where no commercial market exists or will likely develop. Highlight related industrial base issues.

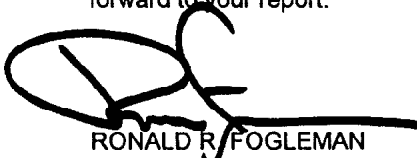
5) Offers advice as to whether our lab structure is consistent with these new vistas, and what changes, if any, should be made.

6) Offers advice as to whether the current SAB charter is consistent with these new vistas, and what changes, if any, should be made.


7) Evaluates your proposal in light of how the Air Force contributes to the joint team.

Roughly every ten years the AF has launched a major S&T forecast. The relative success of these forecasts depends on the degree of interaction with and **commitment of senior AF leadership**. We are fully committed to New World Vistas. We are empowering you to tap the resources in any Air Force organization, including the Secretariat, Air Staff, Air University, or others. We would appreciate quarterly updates on your progress.

A fundamental part of Air Force culture has always been our high technology orientation. In the face of ultra-rapid technological change, the Air Force must take bold steps. New World Vistas is such a step. We know that asking you to formulate a new technological vision for the Air Force capitalizes on the strengths of the Scientific Advisory Board. We have the utmost confidence in your leadership, and anxiously look forward to your report.



RONALD R. FOGLEMAN
General, USAF
Chief of Staff



SHEILA E. WIDNALL
Secretary of the Air Force